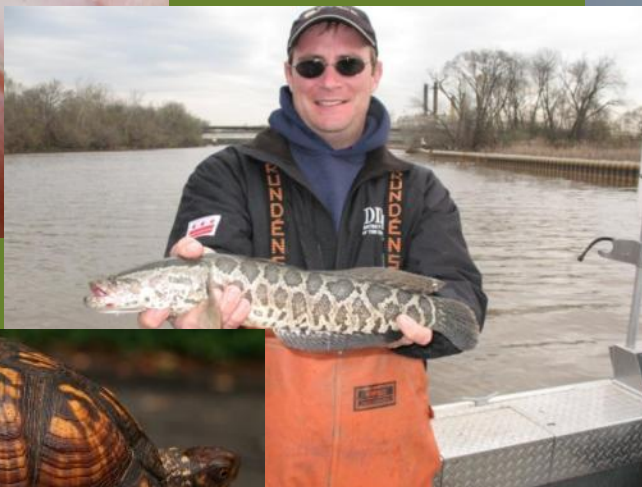


# Updating the District's Wildlife Action Plan in 2015

Fisheries & Wildlife Division  
Department of Energy & Environment  
Government of the District of Columbia





Examples of current monitoring projects and animals found in the District



# Main Elements of the Wildlife Action Plan



- A list of rare or declining animal species
- The location and condition of habitats
- Threats to wildlife and their habitats
- Conservation actions
- Effectiveness monitoring
- Government and stakeholder input
- Public outreach and input

# Rare Animal Species

- “Species of Greatest Conservation Need” (SGCN)
- Threatened by numerous issues
- Face unique threats -> urban area
- Most land-based habitat is protected as National Park
- Long record of natural history in DC





# Rare Animal Species – Listing as SGCN



- 203 SGCN
- Based on recent data
- Quantitative analysis
  - Populations, life history, ecological variables
  - Distribution and trend in the District
  - Habitat specialization
  - External impacts (e.g. emerging diseases)
- Added whole groups (bees, crayfish, snails)

# SGCN 2005 versus SGCN 2015

<b>Taxa</b>	<b>SGCN 2005</b>	<b>SGCN 2015</b>	<b>Removed</b>	<b>Added</b>
<b>Birds</b>	35	58	4	27
<b>Mammals</b>	11	21	2	12
<b>Reptiles</b>	23	17	6	0
<b>Amphibians</b>	16	18	2	4
<b>Fish</b>	12	12	4	4
<b>Dragonflies &amp; Damselflies</b>	9	26	2	19
<b>Butterflies</b>	13	10	6	3
<b>Bees</b>	0	4	N/A	4
<b>Mollusks</b>	9	13	0	4
<b>Crustaceans</b>	19	22	6	9
<b>Sponges</b>	0	2	N/A	2
<b>Total</b>	147	203	32	89

# Rare Animal Species – Prioritization

## *Tier 1: Direct Management*

- Habitat can be improved with management or other conservation efforts
- High probability of successful improvement of habitat and species population

## *Tier 2: Inventory*

- Recent observations exist, but the species is rarely recorded in formal surveys
- Lower probability of successful improvement of habitat and species population

## *Tier 3: Historical Species*

- Reliable historical documentation, but there were no recent observations in the District



# Habitats – Categorization



- Vegetative habitats

- forests, wetlands, grasslands and shrublands

- Aquatic habitats

- rivers, streams, ponds, vernal pools, springs

- Developed areas

- commercial, residential, ball fields, golf courses





Ft. DuPont Park; Mesic Hardwood Forest



National Arboretum; Meadow



Ft. Chaplin Park; Oak-Pine Forest



Potomac River Floodplain Forest



Oxon Run Park; Hardwood Swamp





Potomac River



Vernal Pool



Freshwater Tidal Wetland



Freshwater Pond



Stream



Tidal Mudflats





Habitats in developed areas





Wildlife using built structures in developed areas



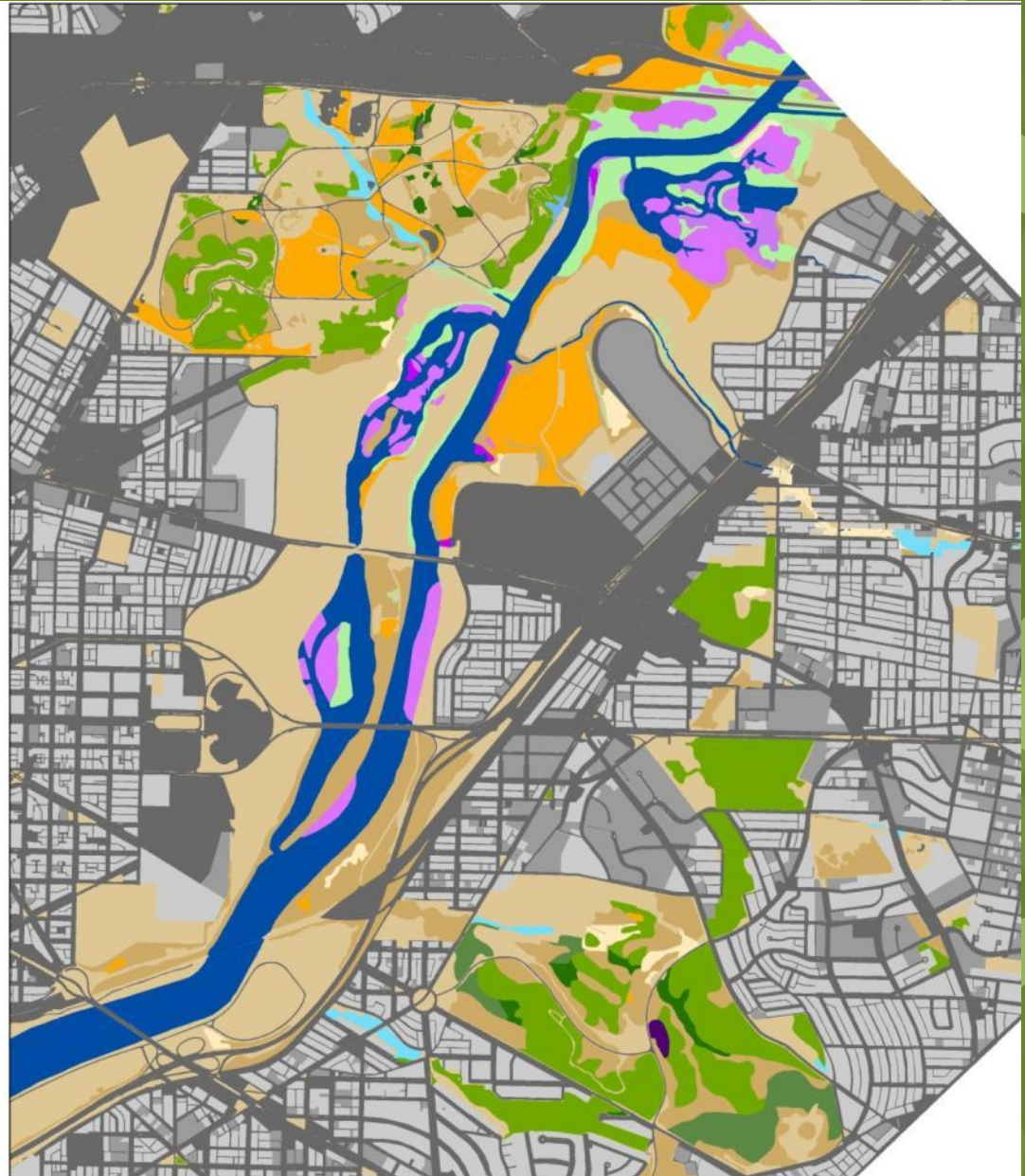
# Vegetative Habitats of the Upper Anacostia River

## Vegetative Habitats and Land Use

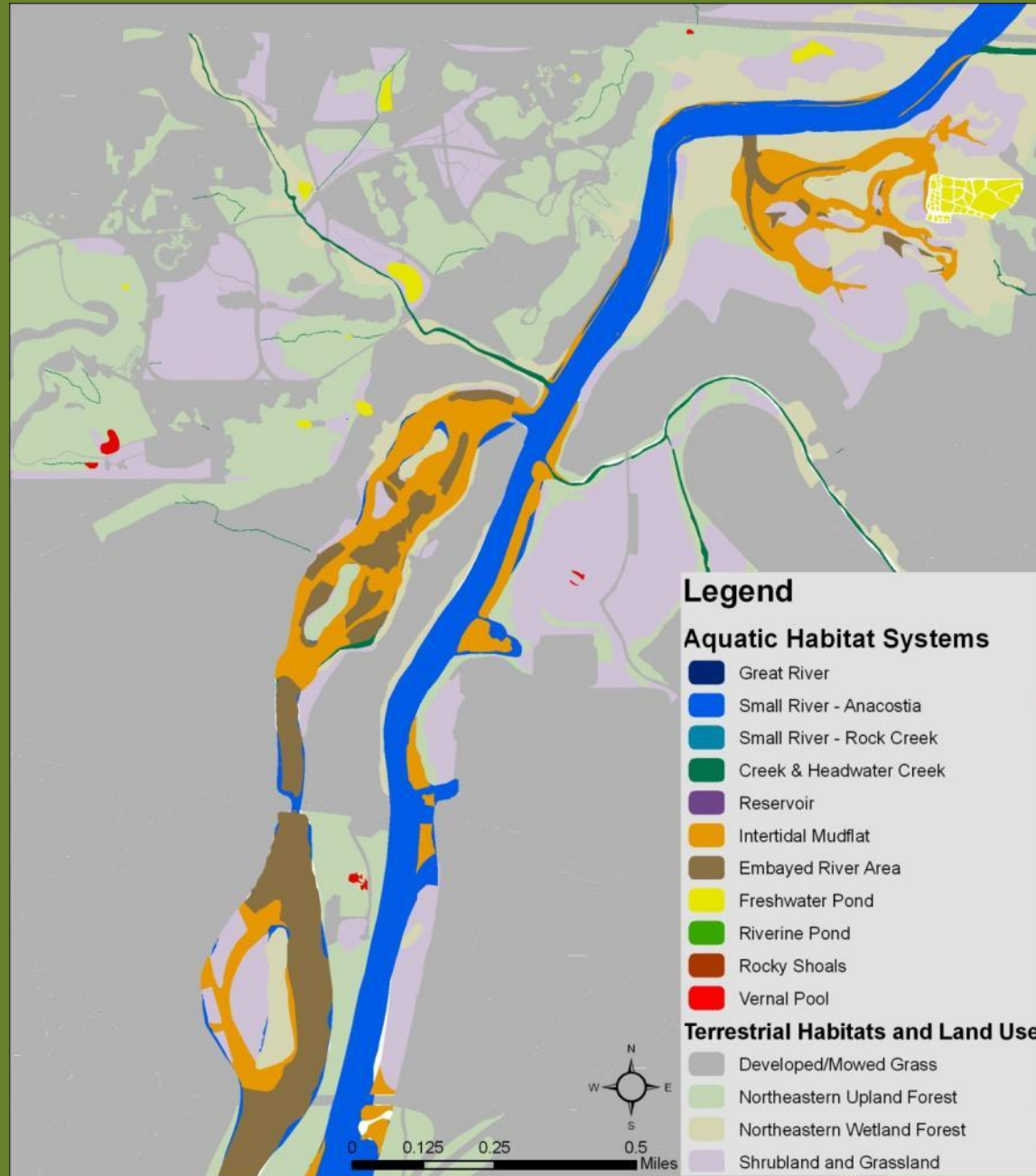
### Habitat System

- Central Appalachian Dry Oak-Pine Forest
- Southern Interior Low Plateau Dry - Mesic Oak Forest
- Southern Atlantic Coastal Plain Mesic Hardwood Forest
- Central Appalachian River Floodplain Forest
- Central Appalachian Stream and Riparian Forest
- Northern Atlantic Coastal Plain Stream and River Forest
- Northern Atlantic Coastal Plain Tidal Swamp
- Northern Atlantic Coastal Plain Fresh Tidal Marsh
- Modified/Managed Marsh
- Open Water
- Ruderal Upland - Old Field
- Northern and Central Hardwood - Ruderal Forest
- Successional Virginia Pine Forest
- Successional Woody Wetland
- Introduced Wetland and Riparian Vegetation
- Introduced Shrubland
- Urban and Recreational Grasses
- Canopy Trees and Recreational Grasses
- Residential - Medium Intensity
- Residential - High Intensity
- Commercial/Industrial

0 0.25 0.5 1 Miles



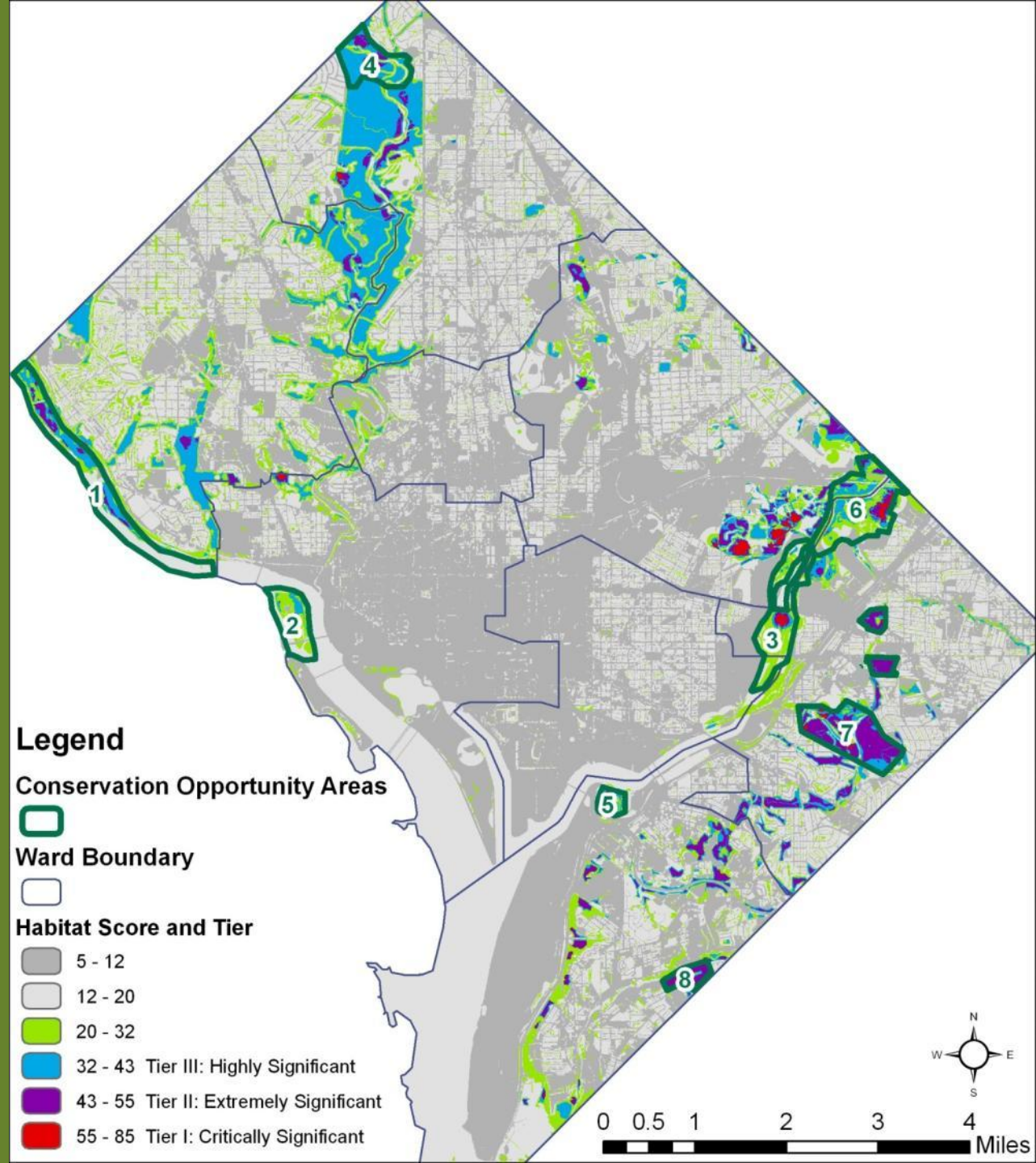
# Aquatic Habitats of the Upper Anacostia River





# Habitat Condition Analysis

- Used 6 data layers in a GIS
  - Species richness
  - Abundance normalized by effort
  - Core habitat/impacts of invasive plants
  - Soil type/quality
  - Deer browse index
  - Tree canopy cover



# IUCN Hierarchy of Conservation Threats 2015

IUCN Level 1	IUCN Level 2	IUCN Level 3
<b>Residential and Commercial Development</b>	Housing and Urban Areas	Any type of development
	Commercial and Industrial Areas	
	Tourism and Recreational Areas	
<b>Transportation and Service Corridors</b>	Roads and Railroads	Road and railroad contruction
	Utility and Service Lines	Utility line
<b>Biological Resource Use</b>	Hunting and Collecting Terrestrial Animals	Intentional Use
		Unintentional effects
	Fishing and Harvesting of Aquatic Resources	Intentional Use (subsistence/small scale)
		Intentional Use (large scale)
<b>Human Intrusions and Disturbance</b>	Recreational Activities	Direct impacts of human use of habitats
	Work and Other Activities	
<b>Natural Systems Modifications</b>	Dams and Water Management/Use	Abstraction of Surface Water (domestic use)
		Small dams, fish passage blockages
	Other Ecosystem Modifications	Fire, mowing or other alteration
<b>Invasive and Other Problematic Species, Genes and Diseases</b>	Invasive Non-native/Alien Species/Diseases	Named or Unspecified Species
	Problematic Native Species/Diseases	
	Problematic Species/Diseases of Unknown Origin	
	Viral/Prion-induced Diseases	Named or Unspecified Disease
<b>Pollution</b>	Domestic and Urban Waste Water	Sewage, Runoff
	Industrial and Military Effluents	Oil Spills
	Agricultural and Forestry Effluents	Herbicides and Pesticides
	Garbage and Solid Waste	type, source, specific pollutants of concern
	Excess Energy	Light, Heat, and Noise Pollution
<b>Climate Change and Severe Weather</b>	Habitat Shifting or Alteration	Variety of specific threats
	Droughts	
	Temperature Extremes	
	Storms and Flooding	
	Sea Level Rise	



# Prioritization of Threats to Vegetative and Aquatic Habitats

## The Top Six Threats

1. Invasive species
2. Urban wastewater
3. Nutrification/  
sedimentation
4. Problematic native  
species
5. Ecosystem modifications
6. Recreational  
activities/development  
of recreational areas



# Overarching Actions - Habitats

These address the top threats:

1. Invasive species management
2. Urban wastewater/CSO abatement
3. Stream restoration; stormwater management infrastructure
4. Deer and goose management; forest and wetland restoration
5. Restore hydrology to vernal pools and bogs; restore fish passage; restore channelized streams
6. Include wildlife impacts in trails planning; close unofficial trails; enforce leash laws





# Focal Conservation Actions

Broad-scale conservation actions that can apply to many habitat types or that may be extensions of or additions to other actions.

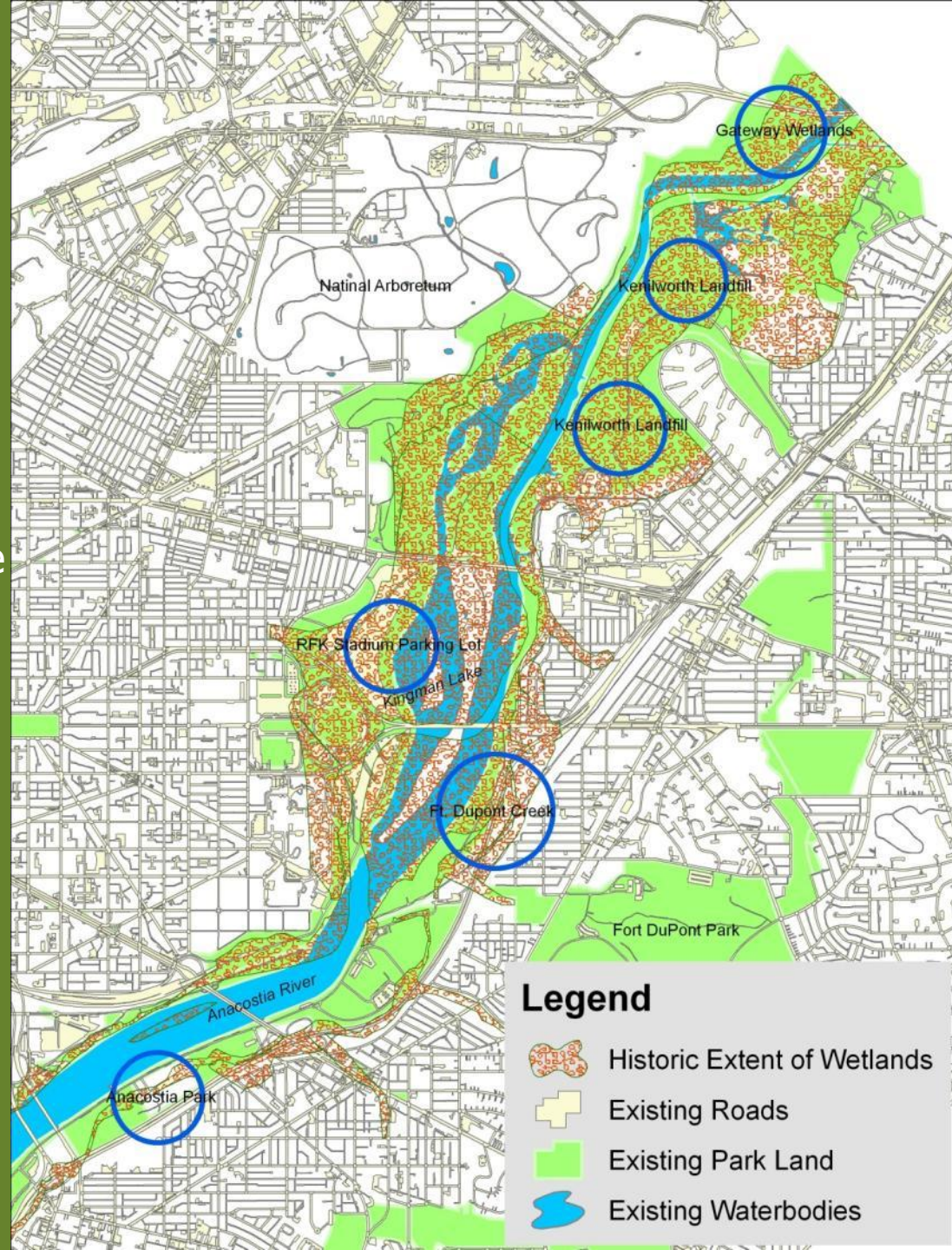
1. Meadow Restoration
2. Tidal Wetland Restoration
3. Native Plant Propagation
4. Vernal Pool Creation
5. Artificial Nesting Structures and Opportunities
6. Citizen Science Programs
7. Wildlife Corridors





# Tidal Wetland Restoration

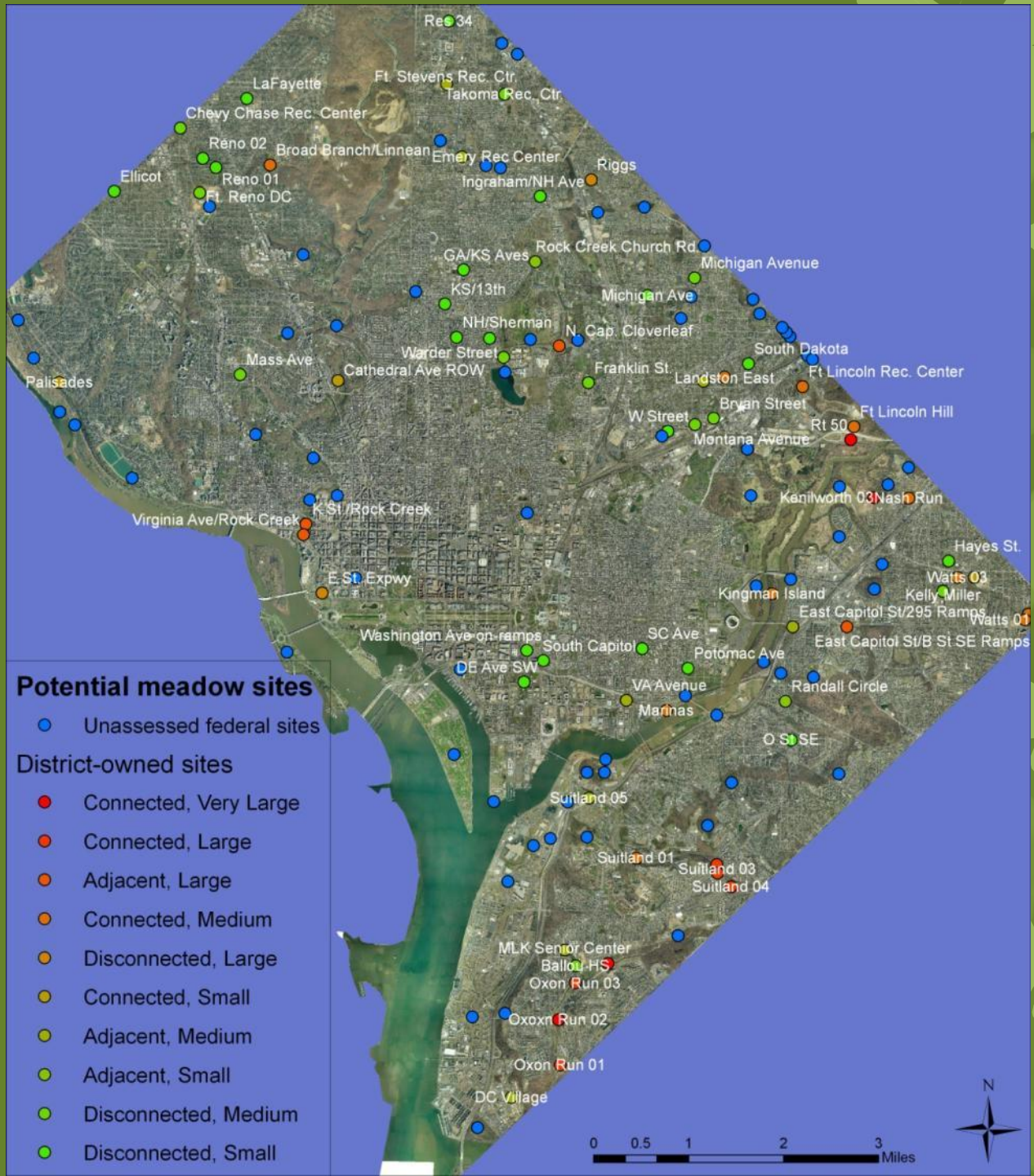
Blue circles indicate potential sites in locations where wetlands may have existed historically





# Meadow Restoration

Potential locations where meadows can be created in areas that are currently mowed grass.







Native Plant Propagation



Native Plant Propagation



Artificial Nesting Structures



Artificial Nesting Structures





Please read the entire Wildlife Action Plan 2015 at  
[doee.dc.gov/swap](http://doee.dc.gov/swap)

Send comments to [swap.comments@dc.gov](mailto:swap.comments@dc.gov)

All of the photographs in this document are pictures of animals observed in the District of Columbia. These photos were taken by Fish & Wildlife Biologists while conducting inventory and monitoring projects throughout the District.